

Application No. 10/519,169  
Reply to Office Action of February 7, 2008

IN THE DRAWINGS

The attached sheets of drawings include changes to Figures 1 and 14.

Attachment: Two Replacement Sheets

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-7 are presently pending in this case. Claim 1 is amended and Claim 8 is canceled without prejudice or disclaimer by the present amendment. As amended Claim 1 is supported by the original disclosure, no new matter is added.

In the outstanding Official Action, Figures 1 and 14 were objected to; the specification was objected to; Claims 1-7 were rejected under 35 U.S.C. §112, second paragraph; Claim 8 was rejected under 35 U.S.C. §102(b) as anticipated by Sato (Japanese Patent Application Publication No. 6-262854); Claims 1-7 were rejected under 35 U.S.C. §103(a) as unpatentable over Fuji et al. ("A Near Field Recording and Readout Technology Using a Metallic Probe in an Optical Desk," hereinafter "Fuji") in view of Nagase et al. (Japanese Patent Application Publication No. 2002-109786, hereinafter "Nagase"); and Claims 1-8 were rejected under the judicially created doctrine of obviousness-type double patenting as unpatentable over Claims 11-14 of U.S. Patent Application No. 10/562,901, Claims 1-5, 8, and 9 of U.S. Patent Application No. 10/563,012, Claims 1 and 2 of U.S. Patent Application No. 10/561,090, Claims 1 and 7 of U.S. Patent Application No. 10/561,096, Claims 1 and 2 of U.S. Patent Application No. 10/561,408, and Claim 1 of U.S. Patent Application No. 10/581,633.

With regard to the objection to Figures 1 and 14, replacement Figures 1 and 14 are provided herewith. Accordingly, the objection to Figures 1 and 14 is believed to be overcome.

With regard to the objection to the specification, the specification is amended herewith to correct some of the informalities noted the outstanding Office Action. However, the errors present in the published application that are not in the specification as filed are not

of record, and thus are not corrected herein. Accordingly, the objection to the specification is believed to be overcome.

With regard to the rejection of Claims 1-7 under 35 U.S.C. §112, second paragraph, Claim 1 is amended to recite:

the recording mark train being formed by decomposing the noble metal oxide, thereby generating oxygen gas to deform the noble metal oxide layer and irreversibly deposit noble metal particles in the noble metal oxide layer, the recording mark train including at least one recording mark having a length shorter than  $0.37\lambda/NA$ , and  
the method for recording and reproducing data comprising s irradiating the laser beam for reproducing data onto the thus deposited noble metal particles, thereby reading the recording mark train.

Consequently, Claims 1-7 are believed to be in compliance with all requirements under 35 U.S.C. §112, second paragraph.

With regard to the rejection of Claim 8 as anticipated by Sato, that rejection is moot due to the cancellation of Claim 8.

With regard to the rejection of Claim 1 as unpatentable over Fuji in view of Nagase, that rejection is respectfully traversed.

Amended Claim 1 recites:

A method for recording data in an optical recording medium by irradiating a laser beam for recording data thereonto and forming a recording mark train and reproducing data from the optical recording medium by irradiating a laser beam for reproducing data having a wavelength  $\lambda$  using an optical system having a numerical aperture NA thereonto and reading the recording mark train,  
***the optical recording medium comprising a noble metal oxide layer containing a noble metal oxide,***  
***the recording mark train being formed by decomposing the noble metal oxide, thereby generating oxygen gas to deform the noble metal oxide layer and irreversibly deposit noble metal particles in the noble metal oxide layer,*** the recording mark train including at least one recording mark having a length shorter than  $0.37\lambda/NA$ , and  
the method for recording and reproducing data comprising irradiating the laser beam for reproducing data onto

the thus deposited noble metal particles, thereby reading the recording mark train.

Fuji describes an optical recording method utilizing the *reversible* decomposition reaction of AgOx.<sup>1</sup> The outstanding Office Action conceded that Fuji fails to disclose a recording medium that undergoes irreversible changes in a noble metal oxide layer when irradiated with light, and cited Nagase as describing this feature.<sup>2</sup> However, it is respectfully submitted that Nagase only describes an optical recording method using a photochromic material<sup>3</sup> or a thermochromic material,<sup>4</sup> *not* a noble metal oxide. Thus, Nagase also does not teach or suggest a recording medium that undergoes irreversible changes in a *noble metal oxide layer* when irradiated with light. Thus, it is respectfully submitted that neither Fuji nor Nagase teaches or suggests “decomposing the *noble metal oxide*, thereby generating oxygen gas to deform the noble metal oxide layer and *irreversibly deposit noble metal particles in the noble metal oxide layer*” as defined in amended Claim 1. Consequently, Claim 1 (and Claims 2-7 dependent therefrom) is not anticipated by Inoue and is patentable thereover.

With regard to the rejections of Claim 8 under the judicially created doctrine of obviousness-type double patenting, these rejections are moot due to the cancellation of Claim 8.

With regard to the rejections of Claims 1-7 under the judicially created doctrine of obviousness-type double patenting, these rejections are moot due to the amendment of claim one. In particular, it is respectfully submitted that none of Claims 11-14 of U.S. Patent Application No. 10/562,901 or Claims 1-5, 8, and 9 of U.S. Patent Application No. 10/563,012 teach or suggest all of the elements of amended Claim 1, as conceded by the outstanding Office Action.<sup>5</sup> Accordingly, pending Claims 1-7 patentably define over Claims

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<sup>1</sup>See Fuji, page 980, left column, section 2, lines 5-9.

<sup>2</sup>See the outstanding Office Action at page 5, lines 12-15.

<sup>3</sup>See Nagase, paragraphs 15 and 17.

<sup>4</sup>See Nagase, paragraph 18.

<sup>5</sup>See the outstanding Office Action at page 8, lines 16-19 and page 9, lines 10-14.

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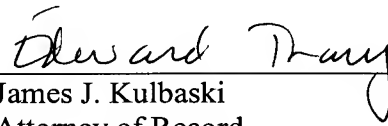
11-14 of U.S. Patent Application No. 10/562,901 and Claims 1-5, 8, and 9 of U.S. Patent  
Application No. 10/563,012.

Accordingly, the pending claims are believed to be in condition for formal allowance.

An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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